

The fund has been used to, among other activities, upgrade 32 percent of the short line railroad trackage from “excepted” track status to FRA Class 1.

### **6.3.2 Passive Grade Crossing Improvement Fund**

The Passive Grade Crossing Improvement Fund was instituted in 1997, and since then more than \$1.5 million in state funds have been made available to local jurisdictions and railroads to fund improvements at passive highway/rail at-grade crossings. Passive highway/rail at-grade crossings do not have automatic train activated warning devices to warn of an oncoming train. Over 2,000 passive grade crossing improvements, in 36 counties, have been implemented under the program. Types of improvements eligible include crossbucks, advance warning signs, pavement marking, overhead streetlights to illuminate a crossing, median barriers, and improvements for better sight distance.

## **6.4 Private Sector Financing and Cost Sharing**

A relatively new approach for financing transportation infrastructure projects is to share construction costs between various beneficiaries of the project. In particular, sharing between public entities and private interests is growing more common. There is no specific format or financing formulas for the organization of “Public/Private” ventures. However, use of federal funds may include required minimum levels of outside financial participation, depending upon the particular program used. The particular make-up of the parties and financial participation is determined on a case-by-case basis.

One of the largest and most complex public-private projects undertaken to date is the Alameda Corridor project linking the rail yards and ports in the Los Angeles region. The \$2.46 billion project was financed through a combination of loans and bonds and involved the Ports of Los Angeles and Long Beach and federal, state, and local transportation agencies. A key component of the construction agreement was the negotiation of user fees to be paid by the railroads. The fees are \$15 per loaded 20-foot container, \$30 per loaded 40-foot container, \$8 per empty container, and \$8 for other types of railcars. These fees will be used to pay back the loans and bonds.

Depending upon the nature of the project, private funding participants could be: affected shippers/receivers along the line, local governmental jurisdictions, franchised concessionaires (at passenger stations), and the affected railroad.

## **7.0 SAFETY TRENDS**

### **7.1 Highway/Railroad Grade Crossing Accident Trends**

The highway/railroad grade crossing safety trends presented herein were derived from the Federal Railroad Administration Office of Safety Analysis data displayed at their website (<http://safetydata.fra.dot.gov/officeofsafety/Query/Default.asp>). These data were summarized into an accident database, which could then be queried to look for trends. The following years were analyzed: 1975, 1985, 1990, 1995, 1998, 2000, and 2001.

In general, there has been a significant decrease in the number of highway/railroad grade crossing accidents during the study period. The same trend follows for the number of accidents with injuries and the number of accidents with fatalities. For example, from 1975 to 2001 accidents dropped from 660 to 147, a decrease of almost 450 percent. Similarly, accidents with injuries dropped from 155 to 44, a decrease of about 350 percent, and accidents with fatalities dropped from 55 to 17, a decrease of about 320 percent. The total number of highway/railroad grade crossing accidents, accidents with injuries, and accidents with fatalities for the study period is indicated in [Table 7-1](#).

Although the actual number of injuries and fatalities has decreased over the years, the percentage of accidents involving an injury or fatality has increased. That is to say, the chance of having an

accident today is much smaller than it was 25 years ago; however, if an accident occurs today, the chance is that it will be more serious than an accident 25 years ago.

**Table 7-1 Indiana Highway/Railroad Grade Crossing Accidents**

<b>Year</b>	<b>Accidents</b>	<b>Accidents with Injuries</b>	<b>Accidents with Fatalities</b>
1975	660	155	55
1985	425	104	39
1990	313	85	31
1995	269	68	28
1998	195	56	22
2000	194	47	20
2001	147	44	17

In the year 2001, the percentage of accidents with injuries was 30 percent, while in 1975 it was 23 percent. In the year 2001, the percentage of fatal accidents was 12 percent, while in 1975 it was 8 percent.

The percentage of accidents occurring at highway/railroad grade crossings without active (gates and/or flashers) warning devices has had a general downward trend. In the years 2000 and 2001, the percentage was 29 percent, while in 1975 it was 39 percent. The percentage of accidents at a grade crossing with gates has been more volatile in recent years. In the years 1998, 2000, and 2001, the percentage of accidents at gated crossings was 19, 15, and 26 percent, respectively. In 1975 it was 12 percent. The higher percentage probably reflects the higher number of gated crossings in service. The majority of these accidents involve drivers attempting to go around the gates, a particularly dangerous action at crossings with multiple tracks.

In the year 2001, the top five counties in terms of accidents—Lake, Madison, St. Joseph, Marion, and Porter—had 38 percent of Indiana’s highway/railroad grade crossing accidents. Lake County, with 27 accidents, had nearly as many as the other four counties combined (28). Lake County has had the highest number of highway/railroad grade crossing accidents in all years studied, and is the only county that was in the top five every year studied. This is because of the relatively high level of population and high level of railroad activity that occurs in Lake County.

## **8.0 RECOMMENDATIONS**

### **8.1 Action Plan for Funding Improvements**

1. Continue to closely monitor the lowest-traffic-density short lines and their continued viability and to develop contingency plans where potentially necessary.

There are currently 12 short lines with traffic densities below 50 carloads per route mile. These short lines constitute 233 route miles and handled 6,204 carloads in the year 2001, an average of 27 carloads per route mile. These 12 railroads require \$12.1 million to achieve the capability for handling cars up to 286,000 lbs. Gross Weight on Rail.

2. Where the future need is apparent, preserve to the extent possible the 1,200-mile short line network by continuing to fund track structure rehabilitation, including upgrading of track structure and bridges to accommodate carloads up to 286,000 lbs. Establish a system of priority for this investment program, utilizing data presented in the Rail Plan. Existing funding levels in the Industrial Rail Service Fund are \$1.5 million per year. Section 2.3.2 indicates that nearly \$100 million in improvements are needed for 286,000 lbs. capability. At current funding levels, it would take 66 years to address all short line needs. Increased funding of the IRSF should be considered.